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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,782	08/27/2003	Ken Takayama	OKI 371	4484

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1101 14TH STREET, NW
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EXAMINER	
LEE, JOHN J	
ART UNIT	**PAPER NUMBER**
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/648,782	TAKAYAMA ET AL.	
	Examiner	Art Unit	
	JOHN J. LEE	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1 – 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoda et al. (US 2004/0031063) in view of Kim et al. (US 6,083,009).

Regarding **claim 1**, Satoda discloses that a cellular telephone (MS) (200 in Fig. 1 and pages 6, paragraphs 83). Satoda teaches that means for communicating by radio with a base station (cellular telephone network (pages 5, paragraphs 55) or 100 in Fig. 1) during a telephone call (Fig. 1 and pages 3, paragraphs 33 – 34, where teaches the mobile station, wireless telephone, communicates with a TV broadcasting server or cellular communication network, during the telephone call, for communicating reproduced broadcast image and sound to other wireless receiver). Satoda teaches that conversion means for converting (reproducing suitable image or sound signal) image signals and/or sound signals into TV broadcasting signals (pages 6, paragraphs 80 – 83 and Fig. 3, where teaches converting for reproducing the image or sound signal for suitable image or sound signal to communicate the other receiver). Satoda teaches that transmission means for transmitting the TV broadcasting signals (image or sound signal) to a TV receiver (pages 8, paragraphs 104 - 105 and Fig. 5, where teaches transmitting TV broadcasting signal (the image or sound signal) to a mobile receiver that can be listened or looked a

television program). Satoda teaches that the cellular telephone (200 in Fig. 1) has a function of reproducing image signals and/or sound signals (pages 6, paragraphs 81 – 83, Fig. 5, and pages 8, paragraphs 105, where teaches the mobile terminal reproduced the image/sound signal (TV broadcasting signal) for transmitting associated wireless receivers), corresponding to execution of a karaoke function and/or a game function (Fig. 5 and pages 8, paragraphs 105, where teaches could be executing the game, karaoke function or movie, event program function by received the TV program data).

Satoda does not specifically disclose the limitation "broadcasting images and sound (TV program) signals to a TV receiver corresponding to execution of a karaoke function and/or a game function". However, Kim teaches the limitation "broadcasting images and sound (TV program) signals to a TV receiver (214 in Fig. 2) corresponding to execution of a karaoke function (202 in Fig. 2) and/or a game function" (column 4 lines 50-63, Fig. 2, where teaches the karaoke device communicating with mobile station and TV receiver to execute of karaoke function by receiving image/sound signals). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to achieve enhancing karaoke service for wireless device in mobile communication system.

Regarding **claim 2**, Satoda teaches that the conversion means enlarges or reduces a display size of image data to a display size corresponding to a display screen of the cellular telephone or the TV receiver (pages 6, paragraphs 69, Fig. 4, and pages 7, paragraphs 91, where teaches converting a form of the broadcast data into proper form

for being displayed a small screen of the mobile terminal by suitable form such as upper half of screen or reduced of the images to display).

Regarding **claim 3**, Satoda as modified by Kim teaches all the limitations as applied to claims 1 and 2 above and also Satoda teaches that the conversion means are implemented so as to correspond to information on image display size, contained in software or data (broadcast information) (pages 6, paragraphs 78-79, Fig. 3, and pages 7, paragraphs 91, where teaches converting a form of the broadcast data, including program guide or program-relate data, into proper form for being displayed a small screen of the mobile terminal by suitable form such as upper half of screen or reduced size of the images to display), for executing the karaoke function or the game function (Fig. 5 and pages 8, paragraphs 105, where teaches could be executing the game, karaoke function or movie, event program function by received the TV program data).

Satoda does not specifically disclose the limitation "broadcasting images and sound (TV program) signals to a TV receiver corresponding to execution of a karaoke function and/or a game function". However, Kim teaches the limitation "broadcasting images and sound (TV program) signals to a TV receiver (214 in Fig. 2) corresponding to execution of a karaoke function (202 in Fig. 2) and/or a game function" (column 4 lines 50-63, Fig. 2, where teaches the karaoke device communicating with mobile station and TV receiver to execute of karaoke function by receiving image/sound signals). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to achieve enhancing karaoke service for wireless device in mobile communication system.

Regarding **claim 4**, Satoda teaches that mixing the sound signals with sound signals received from at least one other cellular telephone (pages 8, paragraphs 99-100 and Fig. 5, where teaches mixing television sound and communication sound to each other, and outputs the thus mixed sound through the sound output device, similarly to the mobile terminals).

Regarding **claim 5**, Satoda teaches that transferring signals after the mixing to the at least one other cellular telephone (pages 8, paragraphs 99-100 and Fig. 5, where teaches the reproduction controller of mobile station mixed television sound and communication sound to each other, and outputs the thus mixed sound through the sound output device, and transmitting similarly to another mobile terminals).

Regarding **claim 6**, Satoda teaches that inputting manipulation signals (instruction data or program guide signal) received from at least one other cellular telephone (200 in Fig. 1) (pages 6, paragraphs 78 and 83 and Fig. 3, where teaches converting a form of the broadcast data, including program guide or program-relate data (instruction data) that should be received from other mobile terminal or TV broadcasting server, into proper form for being displayed a small screen of the mobile terminal by suitable form such as upper half of screen or reduced size of the images to display) in response to execution of the karaoke function or the game function (Fig. 5 and pages 8, paragraphs 105, where teaches could be executing the game, karaoke function or movie, event program function by received the TV program data).

Satoda does not specifically disclose the limitation "broadcasting images and sound (TV program) signals to a TV receiver corresponding to execution of a karaoke

function and/or a game function". However, Kim teaches the limitation "broadcasting images and sound (TV program) signals to a TV receiver (214 in Fig. 2) corresponding to execution of a karaoke function (202 in Fig. 2) and/or a game function" (column 4 lines 50-63, Fig. 2, where teaches the karaoke device communicating with mobile station and TV receiver to execute of karaoke function by receiving image/sound signals). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to achieve enhancing karaoke service for wireless device in mobile communication system.

Regarding **claim 7,** Satoda discloses that a cellular telephone (MS) (200 in Fig. 1 and pages 6, paragraphs 83). Satoda teaches that means for communicating by radio with a base station (cellular telephone network (pages 5, paragraphs 55) or 100 in Fig. 1) during a telephone call (Fig. 1 and pages 3, paragraphs 33 – 34, where teaches the mobile station, wireless telephone, communicates with a TV broadcasting server or cellular communication network, during the telephone call, for communicating reproduced broadcast image and sound to other wireless receiver). Satoda teaches that conversion circuit converting (reproducing suitable image or sound signal) image signals and/or sound signals into TV broadcasting signals (pages 6, paragraphs 80 – 83 and Fig. 3, where teaches reproducing the image or sound signal for suitable image or sound signal to communicate the other receiver). Satoda teaches that transmission circuit transmitting the TV broadcasting signals (image or sound signal) to a TV receiver (pages 8, paragraphs 104 - 105 and Fig. 5, where teaches transmitting TV broadcasting signal (the image or sound signal) to a mobile receiver that can be listened or looked a television

program). Satoda teaches that the cellular telephone (200 in Fig. 1) has a function of reproducing image signals and/or sound signals (pages 6, paragraphs 81 – 83, Fig. 5, and pages 8, paragraphs 105, where teaches the mobile terminal reproduced the image/sound signal (TV broadcasting signal) for transmitting associated wireless receivers), corresponding to execution of a karaoke function and/or a game function (Fig. 5 and pages 8, paragraphs 105, where teaches could be executing the game, karaoke function or movie, event program function by received the TV program data).

Satoda does not specifically disclose the limitation "broadcasting images and sound (TV program) signals to a TV receiver corresponding to execution of a karaoke function and/or a game function". However, Kim teaches the limitation "broadcasting images and sound (TV program) signals to a TV receiver (214 in Fig. 2) corresponding to execution of a karaoke function (202 in Fig. 2) and/or a game function" (column 4 lines 50-63, Fig. 2, where teaches the karaoke device communicating with mobile station and TV receiver to execute of karaoke function by receiving image/sound signals). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to achieve enhancing karaoke service for wireless device in mobile communication system.

Regarding **claim 8**, Satoda teaches that the conversion circuit enlarges or reduces a display size of image data to a display size corresponding to a display screen of the cellular telephone or the TV receiver (pages 6, paragraphs 69, Fig. 4, and pages 7, paragraphs 91, where teaches converting a form of the broadcast data into proper form

for being displayed a small screen of the mobile terminal by suitable form such as upper half of screen or reduced size of the images to display).

Regarding **claim 9**, Satoda as modified by Kim teaches all the limitations as applied to claims 1 and 2 above and also Satoda teaches that the conversion circuit is implemented so as to correspond to information on image display size, contained in software or data (broadcast information) (pages 6, paragraphs 78-79, Fig. 3, and pages 7, paragraphs 91, where teaches converting a form of the broadcast data, including program guide or program-relate data, into proper form for being displayed a small screen of the mobile terminal by suitable form such as upper half of screen or reduced size of the images to display), for executing the karaoke function or the game function (Fig. 5 and pages 8, paragraphs 105, where teaches could be executing the game, karaoke function or movie, event program function by received the TV program data).

Satoda does not specifically disclose the limitation "broadcasting images and sound (TV program) signals to a TV receiver corresponding to execution of a karaoke function and/or a game function". However, Kim teaches the limitation "broadcasting images and sound (TV program) signals to a TV receiver (214 in Fig. 2) corresponding to execution of a karaoke function (202 in Fig. 2) and/or a game function" (column 4 lines 50-63, Fig. 2, where teaches the karaoke device communicating with mobile station and TV receiver to execute of karaoke function by receiving image/sound signals). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to achieve enhancing karaoke service for wireless device in mobile communication system.

Regarding **claim 10**, Satoda teaches that a mixing circuit (reproduction controller (209) in Fig. 1) mixing the sound signals with sound signals received from at least one other cellular telephone (pages 8, paragraphs 99-100 and Fig. 5, where teaches mixing television sound and communication sound to each other, and outputs the thus mixed sound through the sound output device, similarly to the mobile terminals).

Regarding **claim 11**, Satoda teaches that transfer circuit (204 in Fig. 1) transferring signals after the mixing to the at least one other cellular telephone (pages 8, paragraphs 99-100 and Fig. 5, where teaches the reproduction controller of mobile station mixed television sound and communication sound to each other, and outputs the thus mixed sound through the sound output device, and transmitting similarly to another mobile terminals).

Regarding **claim 12**, Satoda teaches that an input circuit (201 in Fig. 1) inputting manipulation signals (instruction data or program guide signal) received from at least one other cellular telephone (200 in Fig. 1) (pages 6, paragraphs 78 and 83 and Fig. 3, where teaches converting a form of the broadcast data, including program guide or program-relate data (instruction data) that should be received from other mobile terminal or TV broadcasting server, into proper form for being displayed a small screen of the mobile terminal by suitable form such as upper half of screen or reduced size of the images to display) in response to execution of the karaoke function or the game function (Fig. 5 and pages 8, paragraphs 105, where teaches could be executing the game, karaoke function or movie, event program function by received the TV program data).

Satoda does not specifically disclose the limitation "broadcasting images and sound (TV program) signals to a TV receiver corresponding to execution of a karaoke function and/or a game function". However, Kim teaches the limitation "broadcasting images and sound (TV program) signals to a TV receiver (214 in Fig. 2) corresponding to execution of a karaoke function (202 in Fig. 2) and/or a game function" (column 4 lines 50-63, Fig. 2, where teaches the karaoke device communicating with mobile station and TV receiver to execute of karaoke function by receiving image/sound signals). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to achieve enhancing karaoke service for wireless device in mobile communication system.

Regarding **claim 13**, Satoda teaches that communicating with a base station (cellular telephone network (pages 5, paragraphs 55) or 100 in Fig. 1) during a telephone call (Fig. 1 and pages 3, paragraphs 33 – 34, where teaches the mobile station, wireless telephone, communicates with a TV broadcasting server or cellular communication network, during the telephone call, for communicating reproduced broadcast image and sound to other wireless receiver).

Regarding **claim 14**, Satoda teaches that communicating with a base station (cellular telephone network (pages 5, paragraphs 55) or 100 in Fig. 1) during a telephone call (Fig. 1 and pages 3, paragraphs 33 – 34, where teaches the mobile station, wireless telephone, communicates with a TV broadcasting server or cellular communication network, during the telephone call, for communicating reproduced broadcast image and sound to other wireless receiver).

Regarding **claim 15**, Satoda discloses that a cellular telephone (MS) (200 in Fig. 1 and pages 6, paragraphs 83). Satoda teaches that a microphone (input device (205) in Fig. 1 such that a microphone). Satoda teaches that mean for communicating with a base station (cellular telephone network (pages 5, paragraphs 55) or 100 in Fig. 1) during a telephone call by a person who uses the microphone (input device (205) in Fig. 1 such that a microphone) during the telephone call (pages 5, paragraphs 64, Fig. 1, and pages 3, paragraphs 33 – 34, where teaches the mobile station, wireless telephone, communicates with a TV broadcasting server or cellular communication network, during the telephone call with using the microphone by user, for communicating reproduced broadcast image and sound to other wireless receiver). Satoda teaches that storing karaoke musical piece data (broadcasting television program for sound and images data) received by the cellular telephone (200 in Fig. 1) via base station (cellular telephone network (pages 5, paragraphs 55) or 100 in Fig. 1) (pages 8, paragraphs 97-99, Fig. 3, and page 1, paragraphs 6, where teaches mobile telephone terminal receives from the base station, broadcast station, the broadcasting TV program (images and sound) data and stores in the principal apparatus). Satoda teaches that converting (reproducing suitable image or sound signal) sound signals generated from the karaoke musical piece data (broadcasting television program for sound and images data) (pages 6, paragraphs 80 – 83 and Fig. 3, where teaches converting for reproducing the image or sound signal for suitable image or sound signal to communicate the other receiver) and audio signals sung into microphone (input device (205) in Fig. 1 such that a microphone) (pages 6, paragraphs 80 – 83 and Fig. 3, where teaches converting for reproducing the image or sound signal for suitable

image or sound signal to communicate the other receiver and the sound signals into input device), when the person (user) uses the cellular telephone (200 in Fig. 1) in karaoke mode, into TV broadcasting signals (Fig. 5 and pages 8, paragraphs 105, where teaches could be executing the game, karaoke function or movie, event program function by received the TV program data). Satoda teaches that means for transmitting the TV broadcasting signals to a TV receiver (pages 8, paragraphs 104 - 105 and Fig. 5, where teaches transmitting TV broadcasting signal (the image or sound signal) to a mobile receiver that can be listened or looked a television program).

Satoda does not specifically disclose the limitation "broadcasting signals, karaoke musical piece data, receives and stores by a TV receiver, mobile terminal, when the person uses the TV receiver, mobile terminal, in karaoke mode". However, Kim teaches the limitation "broadcasting signals, karaoke musical piece data, receives and stores by a TV receiver, mobile terminal, when the person uses the TV receiver, mobile terminal, in karaoke mode" (Fig. 4, column 4, lines 17-25, and column 4, lines 50 - 63, where teaches mobile terminal receives/downloads the karaoke signals or music and converts and stores the audio sound signals for playing the music as executing the karaoke mode). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to improve wireless signal adaptability for karaoke signal or music in mobile device.

Regarding **claim 16**, Satoda teaches that converting sound signals additionally comprises means for converting image signals generated (reproducing the images signals) from the karaoke musical piece data (broadcasting television program for sound and

images data), and including the image signals in the TV broadcasting signals (pages 6, paragraphs 80 – 83 and Fig. 3, where teaches converting for reproducing the broadcasting television program signal for sound and images signals for suitable image or sound signal, and could be executing the game, karaoke function or movie, event program function by received the TV program data).

Satoda does not specifically disclose the limitation "broadcasting signals, karaoke musical piece data, receives and stores by a TV receiver, mobile terminal, when the person uses the TV receiver, mobile terminal, in karaoke mode". However, Kim teaches the limitation "broadcasting signals, karaoke musical piece data, receives and stores by a TV receiver, mobile terminal, when the person uses the TV receiver, mobile terminal, in karaoke mode" (Fig. 4, column 4, lines 17-25, and column 4, lines 50 - 63, where teaches mobile terminal receives/downloads the karaoke signals or music and converts and stores the audio sound signals for playing the music as executing the karaoke mode). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to improve wireless signal adaptability for karaoke signal or music in mobile device.

Regarding **claim 17**, Satoda teaches that mixing audio signals received from another cellular telephone with the sound signals generated from the karaoke musical piece data (broadcasting television program for sound and images data) (pages 8, paragraphs 99-100 and Fig. 5, where teaches the reproduction controller of mobile station mixed television sound and communication sound to each other, and outputs the thus mixed sound through the sound output device, and transmitting similarly to another

mobile terminals) and audio signals sung into the microphone (input device (205) in Fig. 1 such that a microphone) (pages 6, paragraphs 80 – 83 and Fig. 3, where teaches converting for reproducing the image or sound signal for suitable image or sound signal to communicate the other receiver and the sound signals into input device).

Satoda does not specifically disclose the limitation "broadcasting signals, karaoke musical piece data, receives and stores by a TV receiver, mobile terminal, when the person uses the TV receiver, mobile terminal, in karaoke mode". However, Kim teaches the limitation "broadcasting signals, karaoke musical piece data, receives and stores by a TV receiver, mobile terminal, when the person uses the TV receiver, mobile terminal, in karaoke mode" (Fig. 4, column 4, lines 17-25, and column 4, lines 50 - 63, where teaches mobile terminal receives/downloads the karaoke signals or music and converts and stores the audio sound signals for playing the music as executing the karaoke mode). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Satoda system as taught by Kim, provide the motivation to improve wireless signal adaptability for karaoke signal or music in mobile device.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee (US 2003/0040334) discloses Interacting with a Mobile Phone using a TV System.

Hayakawa (US 2003/0137609) discloses Multimedia System Using Plasma or Liquid Crystal Display, Display System of Portable Computer, and Signal Receiver for Television, Radio, and Cellular Telephone.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231
Or P.O. Box 1450
Alexandria VA 22313

or faxed (571) 273-8300, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to USPTO Headquarters, Alexandria, VA.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00

pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Edward Urban**, can be reached on **(571) 272-7899**. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L
March 31, 2007

John J Lee